

REMARKS

Claims 24, 27 and 30 have been amended. New claims 32-37 have been added. No claims have been canceled. Accordingly, claims 1-37 are currently pending in the application.

Claims 1-31 stand rejected under 35 U.S.C. §112, first paragraph, as being non-enabling. Applicants respectfully disagree. From page 11, line 31 to page 12, line 21, Applicants outline how alternating current power systems can be interconnected by direct current power transmission systems in order to enable efficient power transmission over long distances. It is not necessary for Applicants to explain in detail how such power transmission systems should be constructed in order to render the claimed invention enabled under 35 U.S.C. §112. Nonetheless, Applicants provide discrete examples on page 12, line 22 to page 14, line 11. Therefore, the present specification goes much further than merely speculating on a possibility and discloses examples of implementing the claimed invention.

Clearly the case relied upon by the Examiner (Harris Corp. v. IXYS Corp., 114 F.3d 1149, 43 USPQ 2d 1018 (Fed. Cir. 1997)) is distinguishable. In that case, necessary disclosure pertaining to the claim language was omitted. Instead, in the present specification, details of how power is transferred and

what factors are to be considered such as emissions credits, compensating for time of day, climate differences, providing measuring equipment as well as interconnection adjustment equipment as shown in Figures 3, 4 and 6, for example, as well as their related description in the specification are more than sufficient to satisfy the requirements of 35 U.S.C. §112. The Examiner is requested to reconsider the detailed thought processes that the present inventors engaged in as evidenced by the present specification. It is in fact the references cited by the Examiner, such as the NEW SCIENTIST reference, that merely contemplate some energy transfer system. The present inventors even describe the possibility of exchanging emissions credits by trading fuel as well as the contractual obligations that different countries can enter into.

In addition, consideration is given to the reduction of CO<sub>2</sub> emissions (see specification page 24, line 26 - page 25, line 12) by using hydroelectric power instead of some form of thermal power. It is submitted that the Examiner's position that "Applicant has not enabled all of the details needed for crossing vast ocean stretches, crossing mountain ranges, traversing the Antarctic" places an undue burden on Applicant that is unintended by 35 U.S.C. §112". Reconsideration is hereby requested.

Claims 1-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the admitted prior art elements in view of NEW SCIENTIST. This rejection is traversed as follows.

Applicants maintain that the NEW SCIENTIST reference does not disclose a global interconnection system as that recited in the pending claims connecting the various pairs of systems as recited. This is because the reference does not truly consider the exchanging of energy between countries 8,000 - 20,000 kilometers away from one another and having time differences from 6-12 hours. Thus, the NEW SCIENTIST does not consider exchanging energy from one country at midnight to another country at noon.

The NEW SCIENTIST article merely discloses the broad concept of a regional energy transfer system. This article does not truly consider how to implement a global energy transfer system, but merely suggests at its possibility. For example, the last paragraph of the article states that "as electricity demand across the planet grows, the case for ever larger regional electricity grids becomes stronger" (underlining added). In addition, the article recites that in the future, "it will be possible to meet Buckminster Fuller's vision of interconnecting continents".

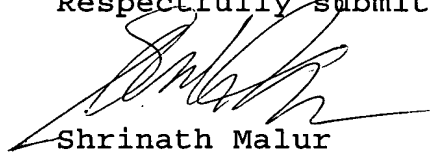
On the other hand, the present invention is directed to a specific way of accomplishing a global energy transfer system with measuring equipment interacting with interconnection adjustment equipment in such a way as to enable the transfer of energy between regional grids of various different countries. For instance, all of the independent claims specifically recite such measuring equipment and the settlement for such transfer of energy between borders based upon these measurements performed by the measuring equipment. The measuring equipment measures an energy mount transmitted through the energy path across a border between countries. Such equipment and the location thereof is necessary to render a global system feasible.

In addition, since all the independent claims recite the interconnection of the various system pairs including North America, South America, Australia, Antarctic and East Asia, it is submitted that these claims patentably define the present invention over the NEW SCIENTIST.

Finally, new claims 32-37 have been added to more clearly define the present invention over the cited art. Therefore, it is submitted that these claims too are patentable and should be allowed.

In view of the foregoing amendments and remarks,  
Applicants contend that the above-identified application is  
now in condition for allowance. Accordingly, reconsideration  
and reexamination are respectfully requested.

Respectfully submitted,



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Date: April 18, 2002

MARKED UP VERSION OF THE REWRITTEN CLAIMS

24. (Amended) An energy and power interchange system, comprising:

a system including an energy generator which generates transmittable energy using an energy source,

an energy path which transmits energy generated by said energy generator across national borders, so as to link together systems in pairs, each system of each linked pair including a Pacific Rim country, for transmission of energy across the national border therebetween, at least one of which Pacific Rim countries produces its own demand for electricity including transient electrical power,

measuring equipment which is mounted on said energy path for measuring an amount of energy which is transmitted through said energy path across a border between countries, and

a system which consumes energy supplied by way of said energy path, wherein settlement for said consumed energy is determined based upon the transmitted amount of energy measured by said measuring equipment,

wherein said energy path links together the following system pairs: a North America system and a South America system, a South America system and an Australia system linked

through the Antarctic continent, an Australia system and an East Asia system, and an East Asia system and a North America system linked through the Bering Strait.

27. (Amended) An energy and power interchange system, comprising:

a first system including power generating facilities located in a first Pacific Rim country,

a second system in a second Pacific Rim country foreign to the first Pacific Rim country, constructed by a direct current transmission system which interconnects said first system and said second system, and

measuring equipment which is mounted on an energy path of said direct current transmission system and measures an energy amount transmitted through said energy path across a border between said countries,

wherein said energy path transmits energy so as to link together pairs of systems including said first and second systems, each system of each linked pair including a Pacific Rim country for transmission of energy across a national border therebetween, wherein settlement for said transmitted energy is determined based upon the measurements taken by said measuring equipment,

wherein at least one of said Pacific Rim countries in each system pair produces its own demand for electricity including transient electrical power, and

wherein said energy path links together the following system pairs: a North America system and a South America system, a South America system and an Australia system linked through the Antarctic continent, an Australia system and an East Asia system, and an East Asia system and a North America system linked through the Bering Strait.

30. (Amended) An energy and power interchange system, comprising:

an energy path which transmits energy so as to link together pairs of systems, each system of each linked pair including a Pacific Rim country for transmission of energy across a national border therebetween, constituted by a direct current transmission system which interconnects at least three different Pacific Rim countries including said different respective countries included in said linked pair of systems, wherein said direct current transmission system includes:

power generating facilities, and

measuring equipment which is mounted on said energy path and which measures an energy amount transmitted through



said energy path across a border between two of said at least three Pacific Rim countries, at least one of which Pacific Rim countries produces its own demand for electricity including transient electrical power, wherein settlement for said transmitted energy is determined based upon the measurements taken by said measuring equipment

wherein said energy path links together the following system pairs: a North America system and a South America system, a South America system and an Australia system linked through the Antarctic continent, an Australia system and an East Asia system, and an East Asia system and a North America system linked through the Bering Strait.



FORM PTO-1083

PATENT

Case Docket No. H-769

In RE application of H. ARITA et al

Serial No.: 09/290,170

Group Art Unit: 2836

Filed: April 13, 1999

Examiner: F. Fleming

For: ENERGY AND POWER INTERCHANGE SYSTEM AND ITS METHOD

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Transmitted herewith is an Amendment in the above-identified application.

- ☐ Small entity status of this application under 37 CFR 1.9 and 1.27 has been established by a verified statement previously submitted.
- ☐ A verified statement to establish small entity status under 37 CFR 1.9 and 1.27 is enclosed.
- ☐ No additional fee is required.

The fee has been calculated as shown below:

	(COL. 1)		(COL. 2)		(COL. 3)
	Claims Remaining After Amendment		Highest No. Previously Paid For		Present Extra
Total	* 37	Minus	** 31	=	6
Indep.	* 3	Minus	*** 3	=	0

☐ First Presentation of Multiple Dependent Claims

SMALL ENTITY	
Rate	Additional Fee
x 9	\$
x 42	\$
+ 140	\$
Total	\$

OTHER THAN A SMALL ENTITY	
Rate	Additional Fee
x 18	\$ 108
x 84	\$ 0
+ 280	\$ 0
Total	\$ 108

- \* If the entry in Col. 1 is less than the entry in Col. 2, write '0' in Col. 3.
- \*\* If the 'Highest Number Previously Paid For' IN THIS SPACE is less than 20, write '20' in this space.
- \*\*\* If the 'Highest Number Previously Paid For' IN THIS SPACE is less than 3, write '3' in this space.
- The 'Highest Number Previously Paid For' (Total or Independent) is the highest number found from the equivalent box in Col. 1 of a prior Amendment or the number of claims originally filed.

- ☐ Please charge my Deposit Account No. 50-1417 in the amount of \$ \_\_\_\_\_.
- ☒ Credit card pmt. form  
A check in the amount of \$ 218.00 is attached in payment of:  
Extension of Time and Additional Claims Fee.
- ☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-1417.
- ☒ Any filing fees under 37 CFR 1.16 for the presentation of extra claims.
- ☒ Any patent application processing fees under 37 CFR 1.17.
- ☒ Any Extension of Time fees that are necessary, which are hereby requested if necessary.

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Date: April 18, 2002

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